12.0mp Infrared Digital Scouting Camera

SG-660/SG-660V/SG-660M

User's Manual

For making best use of all the functions of this camera, please read this user's manual carefully before you use the camera and keep it as handy reference.

According to the instruction to use SG-660V

SG-660M Software keep upgrading, it will be adding some new features, new instruction maybe a little different.

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Content

1：General Description ……..2

2：Warning ……3

3：Cautions ……..…4

4：Camera Body Display and Parts ……5

5：Quick Overview……..6-9

6：Advanced Operations ……10-18

7：General Description Camera Feature ……...19

8：Software Upgrade ……20

9：Mounting the SG-660 series ……...21

10：SG-660 Series Trail Camera Default Setting List ……22

11：FAQ ……23-28

12：Technical Specifications ……..….29

13：Parts List ……..….30

14: SG - 660M GPRS Setting……...…31-36

15: GPRS Notice ……..…36-37

1. General Description

The camera SG-660 Series is designed, developed and produced in China, We have patents for it，the **patent No**:**200920131285.7,201030504272.8, 201030201364.9.** It is a surveillance device working automatically; it is a beautiful style, pretend color, convenient for mount, including digital camera function. It can be triggered by any movement of human(or animals)in a certain region of interested monitored by a highly sensitive passive Infra-Red motion sensor(PIR),and then take high quality pictures (up to 12 mega pixels) or video clips. And the camera SG660M supports MMS/SMS/E-mail via GPRS Network.

SG-660 Series can be used as autonomic surveillance device for guarding and recording unexpected intrusion to homes, shops, warehouse, schools, offices, taxies, worksites etc. It can also be used as trail camera for hunting or monitoring animals by recording the traces of wild animals, it can be left alone for six months stand-by operation time when the device is powered by 8 AA alkaline batteries. Once motion in the monitored area is detected, the Trail camera unit will be triggered at once (typically with in 1s) and then automatically take photos or videos according to previously programmed settings.

The trail camera is equipped with built-in infrared LEDS that function as a lash, professional CMOS, so that it delivers clear photos or videos (in black &white) even in the dark; and it can take color photos or videos under sufficient daylight and the IR LED is off.

It is resistant against water and snow for outdoor use; the height away from ground for placing the device should vary with the object size appropriately. Generally, 1.5-2 meters are preferred. Avoiding rainstorm, thunder, air outlet of the chimney and other heat sources, prohibit use for swimming.

2. Warning

- Please reading the user manual carefully, before using the device, avoid unnecessary lose!

- If your product is out of our service guarantee period, we can still provide paid service like repairing or parts replacements and shipping costs therefore brought.

- SG-660 Series is covered by one year Limited Warranty on parts and labor from the date of original purchase, and purchases must be made through an authorized dealer. The warranty covers defects in workmanship and materials.

- The warranty does not apply to units, which have been damaged or abused intentionally.

- A purchase from individuals or unauthorized internet sites voids the warranty. Tampering with or altering the unit will void the warranty.

- For repair the camera, please contact with local distributor, only send back camera without accessories and packing box.

- As communication networks reasons we can’t guarantee 100% success by sending and receiving MMS.

- If you need any more technical supports or have problem with this product, please give feedback to your local distributor, we want to offer best service for you.

- When using this camera, please pay attention to abide by the laws and regulations, no invasion of privacy, illegal things, manufacturer and distributor will not take any legal responsibility for this.

3. Cautions

- ✧ Be sure the camera's power is switched off before inserting or removing SD card or batteries.

- ✧ It is recommended to use new high-performance alkaline AA batteries or rechargeable batteries, for prevent the liquid rot the battery depot.

- ✧ Please make sure that the battery polarity matches that on the battery cover. Make sure the polarities are correct.

- ✧ In the test mode, the camera will shut down automatically after one minute if no key is pressed, please turn on the power again if you want to continue.

- ✧ Please be sure that no power interrupt occurs during firmware upgrade, otherwise the upgrade process could be interrupted incorrectly. If any fault occurs after improper upgrading process and the camera stops function properly, please return the device to the seller for repair.

- ✧ When the power switch is ON, please don't take out the SD card, battery and remove the external DC power frequently.

- ✧ When mount the product. In 3 meter region, avoiding temperature and motion disturbances in front of device such as big leaf, strap and another heat sources to prevent false triggering.

- ✧ Avoiding temperature and motion disturbances in front of the device such as a air-conditioner, air outlet of the chimney and other heat sources and spotlight to prevent from false triggering and device's life)

- ✧ Battery life will vary with operating temperature and the number of images taken over time, typically, the trail camera will be able to capture several thousand images before the batteries die.

- ✧ Indoor, if you want to get more high quality audio recording, it is recommended to open the bottom of the Mic rubber cover. Outdoor, if have raining or wet weather, please don't the rubber cover. Avoid damage inside of the camera (PCB).

4. Camera Body Display and Parts

Camera Body Description

The camera SG-660 Series Provides the following connection for external devices: LCD, Keyboard, Speaker, SD card slot, SIM card port, Mic port, USB port, TV out, AA Battery depot, and External DC power in.

SG-660 Series Camera front as shown in fig.a; Display and keyboard as shown in fig.b; installing the batteries as shown in fig.c, Connections as shown in fig.d; Bottom cover as shown in fig.e

5、Quick Overview

- The trail camera uses a standard SD (secure digital)memory card to save photo (in jpg format) and / or videos(in .ASF format)

- The supported card size of the device is from 8MB to 32GB, and the file format supported is FAT12 and FAT16**.** Here are some important notices. You don't need to concern about the file system format of the camera unless you have problems with reading the SD-card by your other equipments. If this happened, please format the SD-card in the camera or in a computer at first and then reinsert the card into your camera to make a try.

- It is recommended to use the SD-card with a quality-guarantee. Please insert the SD-card when the power switch is at **OFF** position before testing the camera. The camera has no internal memory for saving images or videos. If no SD-card is inserted, the camera will shut down automatically after a continuous indication sound.

- Formatting the SD card by using the trail camera's format parameter before using it for the first time is recommended, especially when a card has been used in other devices. The system will delete all images or videos stored in the SD-card after formatting, make sure that you have made a backup of important data.

- Before inserting the SD card, Please make sure the sheet metal surface is down, that the write-protect of the card is off. So that it is writable.

- Please fit the SD card to the SD card slot, a slight snapping sound of the card indicates that the card is connected successfully, by the wrong side the card will be blocked for snapping in. Be careful, the SD card can be plugged in only one direction.

- To take out the SD card, just push in the card gently, the card is released from the slot when you hear a slight snapping sound.

5.1.) Power: Two methods to supply power

- Insert each battery with correct the polarity, recommends using alkaline AA batteries or lithium rechargeable batteries.

- External DC power supply source, input 110-240v, 50/60Hz,output 6V/1A(first connect with camera, after plug in the socket)

5.2.) In Test mode: The camera will shut down automatically after one minute if no key is pressed, for saving the battery.

Indicator LED:

a、When the power switch to the ON mode/Live mode, the motion indication LED (green) will blink for 15s then enter into live position.

b、Set mode : Red LED

5.3.) Powering on (shown in fig.1)

Once you have prepared your trail camera by properly Installing an SD card and batteries or external DC, you could switch on the power. The trail camera has three basic operation modes:

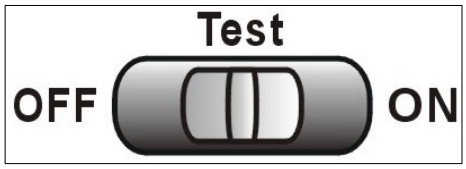


fig.1

OFF： Power switch at **OFF** position

Test： Menu setting and **Test** mode

ON： Power switch in the **ON** position/**Live** mode (LCD screen is off)

- **When you switch on the power, have the frame of starting and indicated voice, for stable starting the camera system need 5 seconds**

- **Test** mode / **Menu setting** mode is moving the power switch to the **Test** position. In **Test** mode can do following operation:

A. Parameter setting: press "**Menu**" key for parameter setting

B. Manually taking picture and recording the videos: press **Up/Down** for capture picture and videos, and could check the picture with built-in LCD.

C. Play back the picture or videos: select Playback from camera mode, or press "**OK**" key continue 5s.

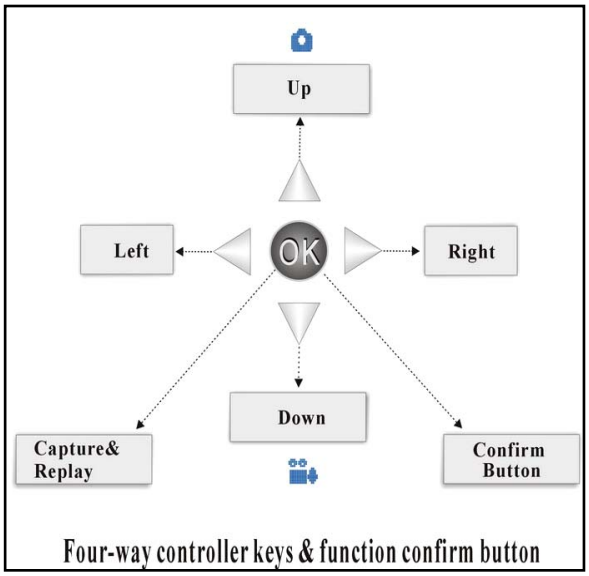
Fig.2

5.4.) manually capture (shown in fig.2)

Can press the shortcut key "**Up (photo)/Down (video)**

Capture photo:

In Test mode, check the photo with built- in LCD, press OK, saving the picture to the SD card automatically



Capture video:

In **Test** mode, can recording the video depend on the battery and memory capability; press **OK** for stop recording, saving the video to the SD card automatically

5.5.) ON/Live mode

1. Switch **OFF** position to **ON** position/**Live** mode
   Avoid temperature and motion disturbances in front of the camera such as big leaf, curtain, air-conditioner, air outlet of the chimney and other heat sources to prevent from false triggering.
2. The height from ground for placing the camera should vary with the object size appropriately. In general, **1.5** to **2 meters** are preferred.

When the power switch is moved to the top position, the camera will enter into the **ON/Live** mode; the motion indicator LED will blink green for about 15 seconds.

When human or animals enter into the monitoring region, the trail camera will take photos or videos automatically according to the default settings or previous customer settings, are saved on the SD card. The camera has the sound recording function, so the sound will be embedded in the video clip while capturing a video.

Once in the **ON** mode, no manual controls are needed or possible (control keys no have effect, the screen is off.)

5.6.) Menu shown as right fig.3

Fig.3

Playing back/Reviewing image/Deleting the photos/videos

There are four ways to review picture, the four ways as bellow:

a.) With camera, connect the device to the PC with USB extension cable)

b.) Connect the device to the TV monitor, should be in the TEST mode)

c.) Without camera, take out SD-card; use PC with SD-card viewer)

d.) Review with camera LCD directly

Four ways for review:

A、USB review:

after take back the camera, switch **OFF** the device, connect the device to the PC with a USB extension cable, and then run a commercial program with an image browser or an image browser built in the operation system to view images (or video clip) saved in the SD-card under the directory of \DCIM).

B、Use a TV monitor to review:

After take back the camera, switch the mode from **OFF** position to **Test** position, continued press "**OK'** 5s, then can enter into viewer, or select **Playback** from camera mode.

* Press **Left** key for the previous picture and the **Right** key for the next one, at any time pressing "**OK"** continued 5s again will return to the **Test** mode.

* Press **Up/Down** key for blow up and shorten the image, press "**OK"** one time, then go back to original image. Press **Menu**, and select the picture, press **OK** for selecting **Delete one** or **Delete all** picture.

* When review the video clips, press **Up/Down** for adjust the voice, press **Menu** one time, after press **OK** for selecting **Delete one** or **Delete all** video clips.

C、Review image directly from SD card:

Take out SD-card; use PC with SD-card viewer.

D、Review with camera LCD:

same review as connect with TV monitor

Save the images and videos in the folder by date, "**.jpg**" for picture "**.asf**" for videos.

For undertaking more parameter, the detailed operations will be described in "Advanced Operations" chapter. Please enter into **Menu** for checking all the current parameter.

5.7.) Powering Off (shown in right fig.4)

Fig.4

Slide the power switch to the **OFF** position to power off the camera, when you don't need to use it, please note that even in the **OFF** mode, the trail camera still consumes certain power at UA level. Therefore, be sure to take the battery out of the battery depot if the device will not be used for a long time.

6、Advanced Operations

After you are familiar with the basic operation of the trail camera, you are now ready for advanced operation, In principle, the advanced operations in this chapter are very similar to the basic operations, only that options and parameters of the trail camera are explained in more detail.

Parameters Setting

You may set parameter with the guide information shown on the LCD or using a TV makes Parameter setting convenient step by step.

In order to change a parameter setting you must enter into the **Test** mode.

First, switch the camera to **Test** mode, press **Menu** enter into the parameter mode, in the course of parameter setting some suggestive information will be shown on the LCD, so it is easy to do the next step according to these information, generally speaking, certain icon, which indicates which value is effective, will be shown on the LCD after finishing setting.

A、Powering on and test mode

In order to change a parameter setting you must enter into the **Test** mode.

When power switch into **Test** position**,**

Shown in fig.5

Fig.5

In **Test** mode, the screen as shown in fig. detail as below：

(a. Camera/Video mode, b. Image/Video Size, c. Number of image/videos and available space, d. SD card status, e. Battery Level, f. Date/Month-Day-year, time: Hour-Minute-Second. g. Audio Recording)

In camera mode, On the top of Screen “0000/0000”, left “0000”digits means number of images. Right “0000” digits mean available space. The limited digits: 9999. It affect by the Memory Card.

In video mode, On the top of “00:00:00”digits, means available space time to take the videos. It affect by the Memory Card.

The quantity of photos or videos, it was affected by the user’s environment and the photo (video)’s parameter’s setting. In the market there are many kinds of quality SD card, the camera will automatically detect and calculate the real capability of SD card.

B、Change parameter setting in **Test** mode.

Press “**Menu** “one time, enter into parameter setting:

1 Camera Mode
2 Digital Zoom
3 Image size
4 Capture Number
5 Video Size
6 Video Length
7 Audio Recording
8 Interval
9 Video Frames
10 Time Stamp
11 Set Clock
12 Sensor Level
13 IR LED
14 Format
15 TV out
16 Language
17 Timer Setting
18 Default Set
19 GPRS Mode
20GPRS Setting
21 Send To

22Frequency
SG-660M trail camera: GPRS setting on last page

C、Press **MENU** enter into menu setting.

(Press Up/Down select ,press OK for finishing setting,press "Exit" for cancel. please operation as follow :

Menu = Ⓜ Exit **Left=** ◀ Back **OK=** OK Set

(1) Setting the camera Mode

Two ways are available for setting this parameter. One is to use the **shortcut** key and the other is through the **Menu**. With the **shortcut** key, you can set **camera mode** to "camera" by pressing the **Up** key and set **camera mode** as "video" by pressing the **Down** key in **Test** mode.

The following shows you how to set camera mode to "video", provided that the previous value is "camera":

a) In **MENU** state its initial state is shown. Press **OK** enter into camera mode, the value of "camera" is highlighted.

b) This parameter has three values: "camera" "video" and "playback "Pressing UP/DOWN key can switch AMONG these parameters. In this example, after pressing DOWN key, "video" will be highlighted.

Press **OK** key for saving the current setting or **MENU** key for canceling the setting operation and exiting to Test mode, if press **Left** key for back to **Menu** mode. Please note, you'll quit the parameter setting without any saving and no parameter is changed if you press the MENU key or Left key at any time before pressing OK key. After pressing OK key, the guide information is shown.

c) Playback: select **"Playback"**, then press **OK** key, images or videos can be viewed, press "**Left/Right"** key for select last/next picture or video, **Up/Down** can blowup/shorter picture, and adjust the voice.

Review picture, continue press "**Up/Down**" ,for blowup and shorter the image, press "**Left/Right**" for moving and review part of image; press **OK** key return to original image, after press "**Left/Right**" select next picture)

(Review videos, as shown in date and time, press "**Left/Right**" for select the videos, press **OK** key for play, select **Up/Down** for adjust the voice.)

***** Delete the picture/videos, when review picture/video, press"**Menu**" and "**OK**" for select

delete one or **Delete all.** Continued press **OK** key 5s, then return to **Test** mode.

(During capture picture/video, if power interrupt occurs or store issue, the file will show: file error when you playback it.)

⑵ **Digital Zoom : (2X/3X/4X)**

Default setting: "NO"

In **Digital Zoom** mode:

a) press **Up/Down** to select **Yes,**

b) press "**OK** "key enter, **Up/Down** for select **((2X / 3X / 4X),**

c) press "**OK"** for finishing setting or Press **Left** key for cancel setting operation without any saving and return to last step.

If no need digital zoom function, press "**NO**", press **OK** key for finishing setting.

⑶ **Image Size**

This parameter has three values: 12 mega pixels (12M Pixel or 12MP), 8 mega pixels (8M Pixel or 8MP) and 5 mega pixels (5M Pixel or 5MP). The default value is 12 mega pixels.

In **Image Size** mode:

a) Press **Up** or **Down** to select **Photo Size "**. 12M/8M/5M"

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode.

⑷ **Capture Number**

The following shows how to set photo burst to **3** Photo,

In **Capture Number** mode:

a) Press **Up** or **Down** to select **1/2/3**

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode

⑸ **Video Size**

This parameter also has three values: VGA (720×480） VGA (640×480）and QVGA (320×240）. The default value is "720x480" (VGA).

In **Video Size** mode:

a) Press **Up** or **Down** to select **Video Size "**. "720/640/320"

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode.

⑹ **Video Length: 5s-60s.**

This parameter is effective and can adjusted only when the device in the video mode for the **Live** mode.

Default setting: 5s

In **Video Length** mode:

a) Press **Up** or **Down** to select **5-60s**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to **Test** mode

⑺ **Audio Recording** : "Yes/No", the icon / indicated "Yes/No"

Default setting: "Yes"

In **Audio Recording** mode:

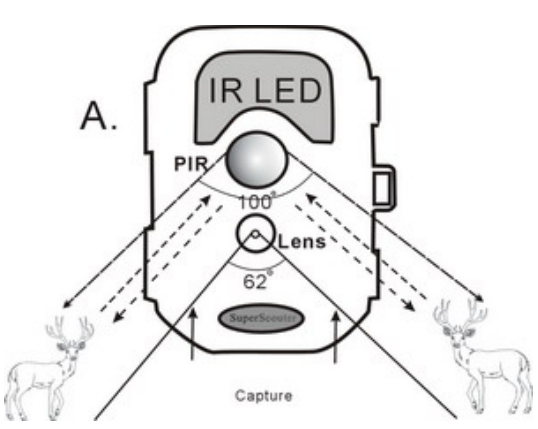
a) Press **Up** or **Down** to select **Yes/No**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to**Test** mode

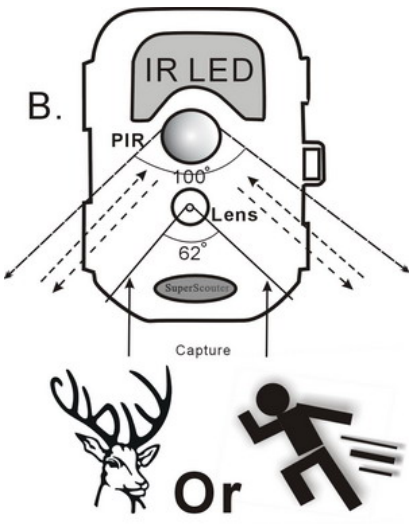
⑻ **Interval : 00s-60mins,**

This parameter is only effective in the **ON/Live** mode; it means that how long PIR of the device will be disabled after each triggering in the **ON/Live** mode. During this time the PIR of the device will not react to the motion of human (or animals).

For example: after setting interval is 3mins, turn ON the camera to be Monitored condition, when any movement of human (or animals) in a certain region of interested monitored, then the PIR of the device will be disable about 3mins after each triggering. During this time the PIR will not react to the motion of human(animals),even the human (animals) is moving in A and B picture area.。

The below three pictures for reference (PIR 100°，camera view 62°):

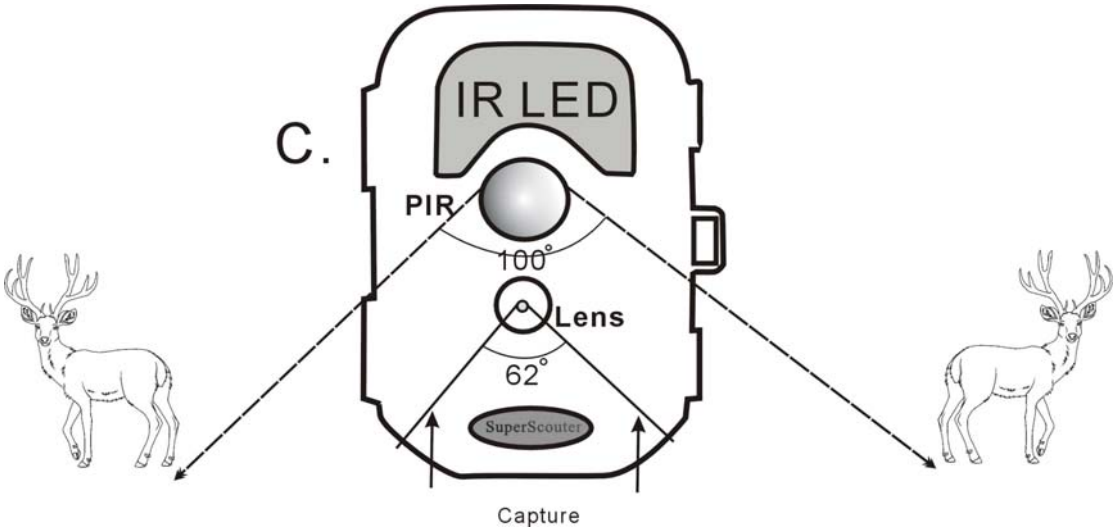




A. When the human (or animals) move to PIR area （**PIR 100°**）,but they didn't enter into Camera view area (62°), the camera start taking photos ,SG-660series have been increased the PIR and camera lens angle. The camera range is more width. Maybe the image looks like empty same as false triggering.

B. When the human (or animals) move to Camera view area, the camera start regular taking photos with high quality.

C. The camera will not react to the motion of human (or animals) after they leave the PIR area.



Notice: when the human or animals enter into A or B area ,maybe they are moving very fast.From the PIR detect the moving , till the camera lens start to take the pictures, it need few seconds to start the camera system. It is recommended to setup capture number 2 or 3 photos.

Default setting: 0s

In **Interval** mode:

a) Press **Up** or **Down** to select **0-60mins**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to **Test** mode

⑼ Video Frames : 30/15 fps

Default setting: 30 fps

In **Video Frames** mode:

a) Press **Up** or **Down** to select **30/15 fps**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to**Test** mode

⑩ **Time stamp : ON/OFF**

This parameter defines whether the time should be stamped in the pictures and videos clips or not.

Default setting: "ON"

In **Time Stamp** mode:

a) Press **Up** or **Down** to select **ON/OFF**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to**Test** mode

⑪ **Set Clock** : (month/date/year) the valid year from 2010-2030, time: hour/minute)

Default setting: as **"01:01:2011 12:01"**

In **Set Clock** mode:

a) Press **Left** or **Right** to select month/date/year—hour: mins
b) press **Up** or **Down** to change the value.
c) Press **OK** to save all current setting
d) Press **Menu** return to Test mode

⑫ **Sensor Level : High/Normal/Low**

This parameter defines the sensitivity of the PIR, the higher degree indicates that the camera is more easily to be triggered by motion, taking more pictures or recording more videos, it is recommended to use high sensitivity degree in room or environment with little interference, and to use lower sensitivity for outdoor or environment with lots of interference like hot wind, smoke, near window etc. Furthermore, the sensitivity of the PIR is strongly related to the temperature. Higher temperature leads t lower sensitivity. Therefore it is suggested to set a higher sensitivity for high temperature environment.

Default setting: Normal

In **Sensor Level** mode:

a) Press **Up** or **Down** to select **High/Normal/Low**
b) Press **OK** to save the current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to **Test** mode

⑬ **IR LED : ON/OFF**

"ON" means IR LED is enable, the camera will work with IR LED when the light is not enough, for capture the high quality picture; off means IR LED is disable, no working in the night time.

Default setting: “ON ”

In **IR LED** mode:

a) Press **Up** or **Down** to select **ON/OFF**

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode

⑭ **Format :Yes/No**

Be carefully when you setting this parameter, when you select **Yes.**

The entire file stored on the card will be deleting, make sure you have downloaded and backed up any files you want to preserve first.

Default setting: “No”

In Format mode:

a) Press **Up** or **Down** to select **Yes/No**

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode

If you select “Yes”, after press OK, Then display will shown in “Format Success”

⑮ **TV Out : NTSC/PAL.**

The user should select the video standard follow their area.

The Default setting: NTSC

In TV **Out** mode:

a) Press **Up** or **Down** to select **NTSC/PAL**

b) Press **OK** to save the current setting

c) Press **Left** for cancel setting operation without any saving and return to last step.

d) Press **Menu** return to **Test** mode

⑯ **Language : English**

The Default setting: English

⑰ **Timer Setting : disable and enable:**

Please note that the start and stop time can only be effective when the timer is set as enable. The steps are as following:

Default setting: disable

In **Timer Setting** mode:

a) First select “Enable”, press **Left** or **Right** to select start/stop :**hour: minute**

b) press **Up** or **Down** to change the value.

c) Press **OK** to save all current setting

d) Press **Menu** return to **Test** mode

⑱ Default Set : No/Yes

Default set is the trail camera original factory default setting.

Default setting: "No"

In **Default set** mode:

a) Press **Up** or **Down** to select no/yes
b) Press **OK** to save all current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to **Test** mode

(Following three parameter setting is only effective in SG-660M camera

(19) GPRS mode—ON/OFF

Default setting: OFF

(20)GPRS Setting

Default setting:
URL Setting: mmsc.monternet.com
APN Setting: cmwap
IP Setting: 10.0.0.172
Port Setting:80

(21) Send To

Default setting: Phone

（22）Frequency : 50/60Hz

Default setting: 50Hz

In **Frequency** mode:

a) Press **Up** or **Down** to select 50/60Hz
b) Press **OK** to save all current setting
c) Press **Left** for cancel setting operation without any saving and return to last step.
d) Press **Menu** return to **Test** mode

7. General Description the camera Feature

7.1.) IR Live mode, enter into **Live** mode, before entering into the **Live** mode, the motion indication LED(green) will blink about 15s,this time let you make preparation for monitoring, for example, you can mount and lock the cover, fix up the trail camera and then walk away.

In this waiting time, the PIR indication light (green) will blink for 15s continuously, after the light is put off, the PIR starts to work. When fix up the product. In 3 meter region, avoid temperature and motion disturbances in front of device such as big leaf, strap and another heat sources to prevent false triggering.

Please note the PIR is strongly sensitive to the temperature, when the temperature difference between environment and object goes lager, the sensible distance is farther.
The farthest distance what the PIR can monitor can reach 15m, while it can only reach to 6m at 32℃.

When human or animals enter into the monitoring region, it will take the picture or videos automatically according to the previous programmed setting.

7.2.) File system---This camera support two kinds of file system format: FAT12 and FAT16,the default value is FAT16 to save the pictures and videos.

7.3.) File format---This camera uses a SD card to save the images and videos in the pre-named \DCIM. Each new image or video will be numbered incrementally by shooting time. The saving name likes SY000001.jpg or SY000001.asf.

8、Software upgrade

Camera use SD card upgrade description

SG-660 Series & Software Updates
Software is a key component to the function of trail camera product. To make certain that you have the latest software update for your SG-660 Series, please read below.

Notice:

1. Insert AA battery or connect DC power, make sure that no power interrupt occurs during software upgrade.
2. After the upgrade is finished, it will shut down automatically 。
3. Same type camera could share one SD card to update the software
4: SG-660V & SG-660M can't share one program, they worked under different software.
5. You could get know the software latest version via read the image copyright on property.

Software Updates:

1. Ready one SD card, it is recommended format the SD card, other files can not be in the SD card.

2. Only copy the following file to SD card root directory, don't need to open the file
1) . spec.bin
2) . elf file

3. Switch to **off** position, insert SD card, continue press **UP** key ,and switch to **test** mode, till red LED blink, then release UP key. The red LED flash 10s to 20s .Then the camera finished update till the Red LED go out.

This camera is equipped with an automatic upgrade function for you. Upgrading is needed only when improved software is available.

9、Mounting the SG-660 series

When you want to use the on/live mode of the device in the outdoor, such as hunting and monitoring the living habits of wild animals, you must mount the device on a certain place properly. SG-660 series, design with skid sawtooth, a belt hole, a steel cable hole, security lock hole. Mount the trail camera using those compositions.

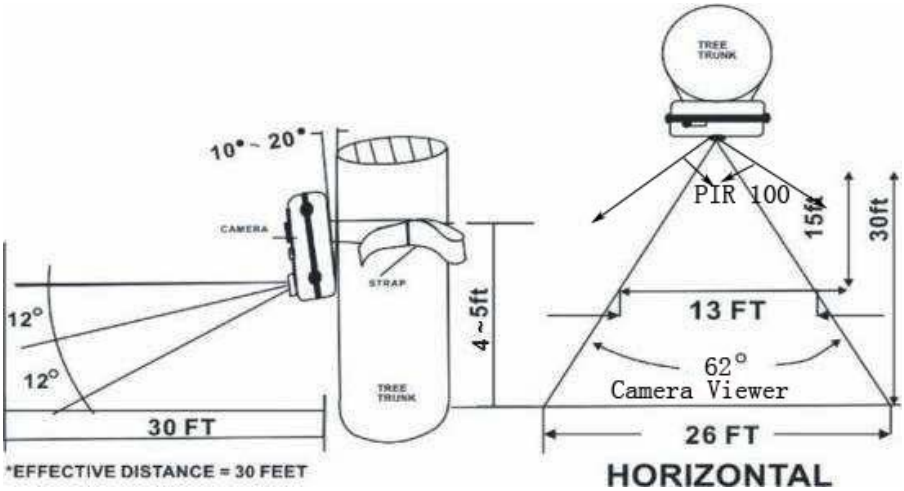
There are four way to mount the trail camera

1、Using the belt
2、Using a rope or a steel cable lock
3、Using a belt and a steel cable lock more firmly
4、For security, lock the locking hole .

It is recommended to mount the device on a tree whose diameter is about 15cm. To get the optimal picture quality, the tree can be 3- 6 meters away from the place to be monitored, and at a height of 1.5 to 2 meters. The aiming direction of lens and the movement direction of object should be orthogonal. (It is recommended that you mount the camera 4-5 ft off the ground with the camera pointed at a slight downward angle.)

Be sure to avoid mounting the camera facing east or west as the rising and setting of the sun could produce false triggers and over exposed images. Clear all branches and other debris away from the front of the camera so as not to block the camera lens or PIR sensor.

You can avoid false triggers, you should adjust it, depend on the object or wild animals' size, moved speed and distance.



PIR Coverage Area Diagram

10、SG-660 Series trail camera default setting list

NO.	MENU Setup	Default Set
1	Camera Mode	Camera
2	Digital Zoom	1X
3	Image Size	12M
4	Capture Number	1
5	Video Size	720
6	Video Lengths	5s
7	Audio Recording	Yes
8	Interval	0s
9	Video Frames	30fps
10	Time Stamp	Yes
11	Set Clock	01/12/2010 .12:01:01
12	Sensor Level	Normal
13	IR LED	Yes
14	Format	NO
15	TV Out	NTSC
16	Language	English
17	Timer Setting	NO
18	Default Set	NO
19	GPRS Mode	OFF
20	GPRS Setting	NO
21	Send To	Phone
22	Frequency	50Hz

19/20/21 three parameter setting is only effective in SG-660M camera.
If you want to see the previous parameter, please on test mode, press menu key one time, view them one by one. You may reset parameter with the guide information.

11: FAQ

Q: Camera takes continuous images of no subject

A: 1.A camera has what is known as a “false trigger” if the PIR sensor thinks that there is motion and heat in front of the camera lens when there is no subject in the image. These “False Triggers” are the result of placing the camera in an environment where there is motion associated with tree branches creating motion in front of the camera or an area where there is high heat in the foreground and any motion from wind could set off the camera. Setting a camera up over water is also a potential cause for this issue. To remedy this situation try moving the camera to an area that does not have any of these issues or try changing the sensor level on the menu settings. If the camera continues to take images when there is no subject in them, try placing the camera in an inside environment and aiming at a location where there is no motion. If the camera continues to show issues, then there is probably an electronic component issue. If this is the case, please contact our customer service to send the camera back for repair.

2. In the PIR and camera view area, if you have install timer game feeder, during this period, the animals will eat the food, then the camera will take continuous images. Till the animals stop moving or leave the area, the camera will stop taking pictures. You can setup the camera interval according to your request.

Q: Battery life short on SG-660 Series.

A: 1. Expected battery life depends on temperature and number of images. SG-660 Series expects the camera to take several thousand images before the batteries would die.

2. Check to make sure you has used new alkaline or lithium AA batteries. Recommend 8 Energizer Lithium AA batteries in all SG-660 Series.

3. Make sure that you are using a good quality SD card in your camera. Recommend SanDisk Brand SD Cards. Unfortunately, poor quality SD cards can make your camera have a much shorter battery life.

4. any type of MMS camera ,if you start using GPRS function, also it will have a shorter battery life. In order to make the camera working continually more time, it is recommended to use external DC 6V/1A adapter.

Q: SG-660 Series stops taking images or won’t take images

A:

1. Please make sure that the SD card is not full. If the card is full, the camera will stop taking images. The camera will shut down automatically.

2. Check batteries to make sure that they are new alkaline or lithium AA batteries. See note about short battery life.

3. Make sure that the camera power switch is in the “On” position and not in the “Off” or “Test” modes.

4. Make sure that you are using a good quality SD card in your camera. Recommend SanDisk Brand SD Cards. Unfortunately, poor quality SD cards can make your camera have a much shorter battery life.

Q: SG-660 Series can't switch on

A: 1. Make sure that you have installed at least 4 batteries in the battery compartment all stocked together at the top of the compartment. Recommend 8 Energizer Lithium AA batteries in all SG-660 Series.

2. Make sure that the batteries are installed correctly. See manual.

Q: Still Photo and/or Video Quality Problems

A:

1: Night photos or videos appear too dark

a. Check the battery indicator icon to see if battery power is full. The flash will stop operating near the end of the battery life.

b. You will get the best results when the subject is within the ideal flash range, no farther than 62° (12m) from the camera. Subjects may appear too dark at greater distances.

c. Please note that when the Capture Number parameter is set higher than "1 Photo", or with very short Interval settings, some images may appear darker than others due to the quick response and rapid retriggering of the camera, allowing less time for the flash to fully recharge before firing again.

2: Daytime photos or videos appear too dark

a. Make sure that the camera is not aimed at the sun or other light sources during the day, as this may cause the auto exposure to produce darker results.

3: Night photos or videos appear too bright

a. You will get the best results when the subject is within the ideal flash range, no closer than 10° (3m) from the camera. Subjects may appear too light at closer distances.

4: Daytime photos or videos appear too bright

a. Make sure that the camera is not aimed at the sun or other light sources during the day. This may cause the auto exposure to produce bright results.

b. When start using IR LED, in 2meters, over exposed light, the images will become white.

5: There are some fuzzy pictures

a. It will has fuzzy pictures if people or animals moved too quick

6: Red, green or blue color cast

a. Under certain lighting conditions, the sensor can become confused resulting in poor color images.

b. If this is seen on a consistent basis, then the sensor may need servicing. Please contact customer service or our factory local distributor

7: Short video clips—not recording to the length set

a. Check to make sure that the SD card is not full.

b. Make sure that the camera has good batteries in it. Near the end of the battery life, the camera may choose to record shorter video clips to conserve power.

8: Under the circumstance of IR LED on, why the pictures or videos are occurred colors and black & white sometimes?

a. This phenomenon will happen if photography at indoor, or at dusk time of outdoor. Due to the camera is automatically senses the brightness of the light, and different brightness depends on different light intensity and angle of view, we can't feel the difference by our own eye, but the camera is so sensitive, they could catch the difference, so it respond by colors or black & white sometimes.

b. You just move a little angle of camera aiming, the result will be different.

c. The light intensity of this camera has been set and developed per Infrared sensitivity outdoor standard.

d. Didn't recommend to turn on the IR LED at indoor, daytime, but it must turn on the IR LED at night.

Q: SG-660 Series date/time Stamp not appearing on images

A: Make sure that the "Time Stamp" setting is set to "On" in the Menu.

Q: Photos Do Not Capture Subject of Interest

A:

1: Check the "Sensor Level" (PIR sensitivity) parameter setting. For warm environmental conditions, set the Sensor Level to "High" and for cold weather use, set the sensor for "Low".

2: Try to set your camera up in an area where there is not a heat source in the camera's line of sight.

3: In some cases, setting the camera near water will make the camera take images with no subject in them. Try aiming the camera over ground.

4: Try to avoid setting the camera up on small trees that are prone to being moved by strong winds.

5: Remove any limbs which are right in front of the camera lens.

Q: PIR Sensor LED Flashes/Doesn't Flash

A: Under working status, the LED will not flash or flash at a short time, aim to keep the camera hidden. Then it can't be found by people or animals.

Q: SG-660 Series won't retain settings

A: 1. Make sure that you have saved the changes that you make during the menu setup of the camera.

2. If you don't select and save these settings, the camera will revert back to the default settings.

Q: SG-660 Series captured video only show the icon, damaged video can't open?

A: Low quality SD card, make the storage error.

Irregular power off. When the batteries are low or stubborn pull out the power supply, it is recommended that first switch off the camera, then take out the batteries.

Q: Whether SG-660 Series use internal GPRS antenna have a bad signal than external GPRS antenna?

A: No, GPRS antenna type has internal and external, same as mobile, didn't affect the GPRS signal, it has effect due to the coverage by the SIM card net provider. It is recommended to use the SIM card provider which have wide fraction of coverage.

Q: SG-660 Series Sometimes the equipment system is stopped.

A:Please restart your camera, because the power supply or memory card quality effect the system program, can't steady-going start when you switch on.， it is impossible that SG660 series will damage your SD card, due to it is only designed for picture or video stored. There are many poor or fake SD cards in current market

Q: On the front or last several images, SG-660 Series will occur some poor images (fuzzy or too white)

A:1:When you switch ON position, mounting the camera, the camera will shake by hand, after the camera fix, then can solve this problem.

2:Enter into ON position, the camera have 15s for waiting time, in the meantime the green indicated LED will wink by turn., after 15s,then enter into the monitored condition.

User can fix the camera during power off the camera, finish fixing the camera, open the cover, switch to ON position, close the cover, left 15s waiting time for adjust the aiming angle.

3:Usually most of people would like to switch on & switch off the camera from front side, as this may cause the auto exposure to produce bright results, suggested from back side or the side to perform switch on & off .

Q: SG-660 Series camera zooming

A: Increase the pixel area of each photo, the default setting is original size, the user can select the "2X/3X/4X" by themselves.

Q: SG-660 Series view to connect with TV, the image has shake

A: The voltage unsteadiness (this relate to your local area power supply.)

Setup the Frequency, choice 50Hz or 60Hz, the user should check local area power frequency.

Q:After insert the SIM card into SG-660M, it can't send MMS to mobile or email?

A:

1:Before insert SIM card, make sure that PIN of SIM card is disabled before inserting the SIM card.(You can disable the PIN of a SIM card via your mobile phone.) Be sure to open the GPRS service for both the camera and your cellular receiving phone. If your SIM card didn't open GPRS function, the camera will not get the signal. Therefore it can't send MMS to mobile or email.

2:In GPRS Setting mode. Please input the correct data according to the user's manual and the information from your local communication provider. Before using MMS function, It is recommended to use the network service provider which have wide fraction of coverage for making high quality signal, and get correct inputs information from them.

3: Switch to Test mode, setup the GPRS mode to "ON", then setup "GPRS setting" mode and "Send To" mode. Press "Left" key for searching the GPRS signal, if it is success, it will shown as "Signal search done". If fail, it will shown as "signal search fail"

4: Make sure the camera is successful to search the signal, then Switch to ON position(Live mode),you can use MMS function and share the pictures with your friends.
5: Make sure you sending camera and receiving mobile have enough charge, and check them in a period of time.
6: Make sure sending camera and receiving mobile have normal signal.
7: Make sure SD card in sending camera, receiving mobile and mailbox have enough memory.
8: Avoid serious crash on the camera.

Q:How to do if you can't take out the SD and SIM card?
A:To take out the SD or SIM card, just push in the card gently, the card is released from the slot when you hear a slight snapping sound.

Q: Why the photo time is different with receiving time via email or MMS in the mobile ?
A: usually with in 15s-2mins, you can receive them.
Sometimes it delayed For the Email, it effect by your computer or email setting.

Q:After insert SD card, switch to TEST mode, the LED is always blink ,but the TFT LED display is not working?
A: The SD card maybe broken. Please change one new SD and try it again. It is impossible that SG660 series will damage your SD card, due to it is only designed for picture or video stored. There are many poor or fake SD cards in current market

Q: When you open the GPRS function, the interval is 30s, human or animals is moving in the monitoring region, but in 30s to 2mins,the camera didn't take any pictures?

A: Because when you start GPRS function, after taken one picture, the camera will search the signal automatically, in the meantime it will send the MMS to your email or mobile, the camera system will spend 20s to 2mins to complete this process. During this process, even it have triggering, maybe can't capture the picture.

Q: Open GPRS function, and setup capture number is 1 or 2 pictures, but when we read the SD card, it will have 640*480 photos?

A:If you open GPRS function, setup capture number is 1or 2 pictures, the camera will save the

first one as 640*480 image size ,and send to your email or mobile ,due to the MMS only accept less than 50K photo.

Q: Open GPRS function, it saved 10pcs 640*480 photos in SD card , but we only received 8pcs photos in the mobile or email?
A: the cell phone signal in different area will be different although it supplied by same telecommunication operator, taken as example, when you start to have a call, initially the signal is very well, maybe the signal not always stable, it will switch between weak and strong on your calling, sometimes you might can't hear clearly or hear nothing when the signal is weak or bad. As communication networks reasons SG-660M can't guarantee 100% success by sending and receiving MMS. Like the principle of cell phone, When you use GPRS to browse website via cell phone, you will find the signal is not always stable, due to it depends on the local communication network is busy/not busy or is there any interrupt

Q: How to get know the photography area, so that you could know the best position to place the camera?
A: At first, hand holds the camera at the desired area you want to put, then look at the TFT LCD screen to get know the photography area after switch on. Adjust the shooting angle until you find the satisfactory angle.

Q: I am so confused with the settings on SG-660M, could you please clarify?
A: SG-660M use the SIM card and requires some parameter to be set up correctly in order to make it work. For example, in Atlanta, GA area, with AT&T network, you will need to set your parameter up as following. Different region may have different values, you may need to contact your local carrier for correct value. You can either change the settings. Or you can edit the GPRS.DAT file on SD card.

GPRS Settings for AT&T,in Atlanta, GA area
URL=mmsc.cingular.com
APN=wap.cingular
IP=066.209.11.32
Port=80

GPRS Settings for AT&T,in Grand Prairie, Texas 75050 USA
URL= mmsc.cingular.com
APN= wap.cingular
IP=066.209.11.32
Port=8080

Q: Will this camera work with any wireless network/carrier?
A: NO, It does not support CDMA or Non-Sim card network. Also, even with the SIM card carrier, the SIM card size need to be the standard size (15mm by 25 mm), micro SIM card (12mm by 15 mm) for Iphone 4 or Ipad will not work.

Q:Will SG-660 series connect to an external solar or battery powered?
A: Yes, as long as the input camera 6V/1A power supply can be, our factory SG-660 series are ordered to produce Extra DC wire (1000CM or180CM) connected to solar or storage battery.

12. Technical Specifications

Display Screen	**SG-660: 2" Black & White LCD** **SG-660V : 2" Color viewer LCD** **SG-660M: 2" Color viewer LCD** **（MMS/SMS/E-mail via GPRS Network ）**
Image Sensor	**Maximum 12.0 Mega Pixels Resolution**
Angle	**PIR:100°**
Lens	**F=2.8; FOV=62° ;Max View 92°; Auto IR-Cut-Remove (at night)**
Size	**14 * 9 * 6 CM**
IR-Flash	**Yes / No**
IR-LED	**0-15m (26 pcs)**
Internal memory	**32MB**
SD Card	**From 8MB to 32GB(No including)**
Picture Size	**12MP=4000x3000 / 8MP=3264x2448 / 5MP = 2592x1944 (JPEG)**
Video Size	**720x480,640x480; 320x240 : 15 or 30fps （ASF）**
Compressed format	**H.264**
Audio Recording	**Available**
PIR sensitivity	**PIR with 3 sensitivity level: High/Normal/Low**
Operation	**Day/night**
Trigger Time	**0.8-1 s (GPRS:1.2s)**
Triggering Interval	**00sec. - 60min. programmable (Available)**
Shooting Numbers	**1~3 programmable (Available)**
Video Length	**5-60sec. programmable(Available)**
Power Supply	**4 or 8 x AA Batteries or External power supply (6V/1A) (No including)**
Stand-by Current	**< 0.3mA (<7mAh/day)**
Power Consumption	**400 videos（interval=5min,video length=10s）;** **>500 MMS(use 8*AA batteries)**
Interface	**TV out (NTSC，PAL); USB; SD card holder;**

	6V DC external
Operation Temperature	**-20 - 60°C (Storage temperature: -30 - 70°C)**
Mounting	**Rope/Belt/Python lock**
Operation Humidity	**5% - 90%**
Waterproof spec	**IP54**
Security authentication	**CE FCC ROSH**

13：Parts List

Part name	Quantity
Digital camera	1
USB cable	1
TV out cable	1
Belt	1
User manual	1
Warranty card	1
DC supply	(No including,Paid service)
Extra DC wire (10m or2m &) connected to solar or storage battery	(No including,Paid service)

If you need Extra DC and DC wire, please contact with your local distributor, and they can order from our factory.

14. SG-660M GPRS Setting

1. Power **OFF**. SIM card(unlocked)

2. Please make sure you have insert **SIM card**, **SD card** and **Batteries or external DC Power** (6V/1A), before using SG-660M.It is recommended to use new high-performance alkaline AA batteries or rechargeable lithium batteries.

3. Enter into **Test** mode:
   Press **Menu** to display the setting menu, and then press **Up/Down** buttons to select **GPRS mode** setting.

   a. In **GPRS mode**, there are two modes: "**on/off**", "**ON**" means when camera is on monitored condition, it will keep sending photos to your mobile/email.
   b. Default setting: **off**.
   c. Press **Up/down** for select **ON**, press **OK** for saving current setting.

4. Enter into **GPRS setting** which provided by the network service provider, there are only four setting to be entered, the steps are as follows:

   a. In **GPRS setting** mode, there are four inputs for key in URL Setting, APN Setting, IP Setting, and Port Setting.
      Account and password(don't need)
   b. Default setting: (**this default setting is for China mobile & China telecom GPRS setting, if you want to set your local GPRS setting, please delete the default data**.)

China mobile Default setting	**China telecom Default setting**
URL Setting: mmsc.monternet.com	URL Setting: mmsc.monternet.com
APN Setting: cmwap	APN Setting: uniwap
IP Setting: 10.0.0.172	IP Setting: 10.0.0.172
Port Setting:80	Port Setting:80

Please note that this is only an example ,for more details please contact your network service provider, and there are only 4 parameters needs to be edited, do please not change other parameters expect these 4 parameters to avoid operation failure.

No need key in "http://"， after input or copy GPRS setting information to your GPRS.DAT file,please check them,if you have input any more information or blank space,otherwise it will fail with sending MMS.

The below setting for reference:

1.) In Finland provider name: Sonera
URL Setting=mms.sonera.net:8002
APN Setting=wap.sonera.net
IP Setting=195.156.25.33
Port Setting =80

In Finland provider name: DNA
URL Setting=mmsc.dnafinland.fi
APN Setting=mms
IP Setting=10.1.1.2
Port Setting =8080

ELISA:
URL=mms.elisa.fi
APN=mms
IP=213.161.41.57
Port=80

SAUNALAHTI:
URL=mms.saunalahti.fi:8002
APN=mms.saunalahti.fi
IP=62.142.4.197
Port=8080

TELE FINLAND
URL=mms.sonera.net:8002
APN=telefinland
IP=195.156.25.33
Port=80

2.) In Sweden provider name: Telia
URL Setting = mmss
APN Setting = mms.telia.se
IP Setting = 193.209.134.132

Port Setting = 8080

3.)In Germany provider Name: T-Mobile
URL Setting = mms.t-mobile.de/servlets/mms
APN Setting =mms.t-d1.de
IP Setting =172.28.023.131
Port Setting =8008

Provider Name:O2
URL Setting = 10.81.0.7:8002
APN Setting = internet
IP Setting = 195.182.114.52
Port Setting = 8080

4.)In Bulgaria provider Name: mtel
URL Setting =mmsc
APN Setting =mms-gprs.mtel.bg
IP Setting =10.150.0.33
Port Setting =8080

5.)In Slovak

O2 provider
URL=mms.o2world.sk:8002
APN=o2mms
IP=10.97.1.11
Port=8080 (9201 old phones)

ORANGE provider
URL=mms.orange.sk
APN=mms
IP=213.151.208.145
Port=8799 (9200-9203 old phones)

T-MOBILE provider
URL=mms
APN=mms
IP=192.168.001.001
Port=8080 (9201 old phones)

6)In Canada GPRS setting
Provider Name: rogers

URL=mms.gprs.rogers.com
APN=media.com
IP=172.025.000.107
Port=80

7)In South Africa GPRS setting
Provider Name:Vodacom

URL= mmsc.vodacom4me.co.za
APN= internet
IP= 196.006.128.013
Port=8080

URL=mmsc.vodacom4me.co.za
APN=internet
IP=196.6.128.13
Port=8080

8))In Ukraine GPRS setting
Operator: KyivStar
URL=mms.kyivstar.net
APN=mms.kyivstar.net
IP=010.010.010.010
Port=8080

Operator: Beeline UA
URL= mms/
APN= mms.beeline.ua
IP= 172.29.18.192
Port=8080

Operator: MTS Ukraine
URL=mms/
APN=mms
IP=192.168.010.010
Port=8080

Operator: LIFE
URL= mms.life.com.ua/cmmsc/post
APN=mms
IP= 212.58.162.230
Port=8080

9)In Australia GPRS setting

Provider Name: OPTUS
URL= mmsc.optus.com.au:8002
APN= mms
IP= 61.88.190.10
Port=8070

10)In Lithuanian GPRS setting
Provider Name: omnitel
URL=mms.omnitel.net:8002
APN=gprs.mms.lt
IP=194.176.32.149
Port=8080
11) In Estonia GPRS setting
Provider Name: Elisa
URL=194.204.2.10
APN=mms
IP=194.204.002.006
Port=8000

12) In Spain GPRS setting
Provider Name: telefonica
URL=mms.movistar.com
APN=telefonica.es
IP=10.138.255.005
Port=8080

13) In france GPRS setting
Provider Name: orange
URL=mms.orange.fr
APN=orange.acte
IP=192.168.010.200
Port=8080

14) In Switzerland GPRS setting
Provider Name: sunrise
URL=mscs.sunrise.ch
APN =mms.sunrise.ch
IP =212.35.34.75
Port=9201

c. Press **OK** enter into each inputs setting, Press **Up/Down**, **Left/Down**, select the digits, letters or punctuations. Press **OK** for saving current setting,press the "←"(cancel)on the display to delete.
d. .Press **Menu** for exit.

5. **Enter into Send To mode**, enter the phone number or email which the MMS to be sent
In Send To mode, there are two inputs, Phone and Email.

Suggested to input 3 or more cell phone number and e-mail box each to avoid any images missing, due to the mobile operators are different, and signal is not so stable per different cell phone, as well as mailbox server are different.

Phone:
Phone Number1
Phone Number2
Phone Number3
Phone Number4

Email:
Email Adress 1
Email Adress 2
Email Adress 3
Email Adress 4

There are two ways to input the phone number and email address:

1: Press Ok enter into Phone or Email setting. Press Up/Down, Left/Down, select the digits, letters or punctuations. Press OK for saving current setting,press the "←"(cancel)on the display to delete.

2. Easy access to GPRS setting (edit in the computer)

a. Load the fully charged batteries or connect with power supply.

b:Insert SD card and SIM card, power on and entering into the TEST mode. And setup the GPRS mode is ON position. and In Send to mode, press OK enter into Phone Number1 or Email Address 1 , no need input any words, just need click Menu button for log out，a new file named "GPRS.DAT" is created automatically in the SD card. In Test mode, and connect computer with USB, Reedit the file" GPRS.DAT" as WORD OR TXT format. It will show below data and save the data automatically in the camera:

URL=mmsc.monternet.com
APN=cmwap
IP=10.0.0.172
Port=80
Tel1=
Tel2=

Tel3=
Tel4=
Email1=
Email2=
Email3=
Email4=
Test SG-660M in China,if we key international code "+86"and"86" in front of mobile number. Or we only key the mobile number,we test result successfully with sending MMS. In China, no need key "0", for another country phone number setting,it is recommended to try both of them with "0" or without "0".normally, only input mobile number is ok.

6:GPRS test manually

a)perform the process of GPRS mode, GPRS setting & send to

b)Press right arrow button, on screen, it will occur GPRS test and then the camera will take a picture automatically

c)Camera will search the GPRS signal automatically. MMS will be sent out automatically when the signal found, meanwhile it will save the MMS in camera automatically with file size below 50KB and the screen will show as GPRS test over.

d)Press Menu for exit.

15.GPRS Notice

1: If you set phone and email both, then it will send to your phone and email both. Receiving MMS default setting image size is 640*480.In the meantime, it will save automatically the pictures which is your current parameter setting in your camera memory or SD card.

2: For SG-660M, if you want download the pictures/videos via USB. It must be on Test mode.

3: It is recommended that please OFF the GPRS mode, if you not using the MMS function. It will save the battery power.

4: In Test mode, press Left key for Search the signal. During you are searching the signal, you can't exit. If success, then press Left key for exit, then enter into ON monitored condition, you can share the beautiful picture with your friends. It will save automatically in your SD card also.

5: The Camera send MMS message through GPRS network, so before using this function, you need to open GPRS service from your service provider. It supports four bands: 850MHz, 900MHz, 1800MHz, and 1900MHz.

6: Be sure that PIN of SIM card is disabled before inserting the SIM card.(you can disable the PIN of a SIM card via your mobile phone)

7: Before search the signal; please make sure that GPRS function is perfect and correct.

8: Please make sure that your batteries is enough, if batteries is low, it will bring the search signal failed.

9: When you search the signal, it will take 30-60seconds,if it is failed first time, please restart the camera, and press Left key for search it again.

10: If the signal of mobile is not so strong or steady, this may lead failures on sending MMS. Be sure proper GPRS network coverage is available.

11: In order to better control the junk MMS, there are some limits to the number of MMS sending per day per cell phone & also there is some restrict in the GPRS flow per day as well in some countries. So if exceed the limitation number, the GPRS function will be closed automatically via the system in telecom communication, the MMS can't be sent out successfully, but will back to normal on next day.

12: Be sure to open the GPRS service for both the camera and your cellular receiving phone.

13: In Test mode, the camera will shut down automatically after 1 minute without a key-in action. Please turn on the power again for new actions.

14:There might need pay for some charges for sending MMS in some countries, take as one example that it will have RMB 0.15 for sending one MMS in China (1USD = 6.4647RMB, 27 June 2011).
In order to save power and money, suggest closing the GPRS function if no need or set up the Capture number per you needed time.

15: SG-660M is achieved through the GSM network via GPRS to send MMS, maybe not support 3G/3.5G/4G/WCDMA/CDMA communication network SIM card, GPRS settings do not need IMEI code (15 or 18 digits) and user name or password, because SG-660M is only a infrared digital camera, not a communication tool. Our factory are in the development of the scouting camera to support 3G networks.